

CLAIMS

1. An extensible beam comprising:
a first, elongate, element;
a second element adapted to move relative to the
5 first elongate element in order to vary the amount of
overlap between the first and second elements and thereby
vary the length of the beam;
wherein the first element includes first and
second support portions; and
10 the second element includes first and second
spaced apart strut members for engagement with the first
and second support portions respectively.
2. An extensible beam as claimed in claim 1,
wherein the first element has an upper portion which, in
15 use, provides a surface to support materials above the
beam, and first and second lateral portions depending from
the upper portion.
3. An extensible beam as claimed in claim 2,
wherein the first element comprises an elongate member
20 with a shape which defines a channel with generally
rectangular cross-section extending through the member.
4. An extensible beam as claimed in any
preceding claim, wherein the first element comprises a
length of metal C-section.
- 25 5. An extensible beam as claimed in any
preceding claim, wherein the first and second strut
members comprise respective bars which have substantially
greater thickness than the lateral portions of the first
element.
- 30 6. An extensible beam as claimed in claim 5,
wherein the bars are solid bars.
7. An extensible beam as claimed in any
preceding claim, wherein the first and second strut
members are dimensioned so that each is substantially
35 uniform in cross-sectional shape through a substantial
part of its length.

8. An extensible beam as claimed in any preceding claim, wherein in use, with the beam in a horizontal orientation, the vertical height of each strut member is greater than its thickness.

5 9. An extensible beam as claimed in any preceding claim, wherein in use, with the beam in a horizontal orientation, the height of each strut member is smaller than the height of the lateral portions of the first element.

10 10. An extensible beam as claimed in claim 9, wherein, the height of each strut member is less than 80% of the height of the lateral portions of the first element.

15 11. An extensible beam as claimed in either of claims 9 or 10, wherein the height of each strut member is approximately two thirds of the height of the lateral portions of the first element.

20 12. An extensible beam as claimed in any preceding claim, wherein the second element comprises the first and second strut members and at least one cross member extending between the first and second strut members.

25 13. An extensible beam as claimed in claim 12, wherein a first cross member extends between respective first ends of the first and second strut members and a second cross member extends between respective second ends of the first and second strut members.

30 14. An extensible beam as claimed in either of claims 12 or 13, wherein the second element is frame-like in form.

15. An extensible beam as claimed in any preceding claim, wherein the first and second support portions are adapted to slidably engage the respective first and second strut members.

35 16. An extensible beam as claimed in any preceding claim, wherein the second element is located at least partially inside the first element and is adapted,

in use, to be moved further into the first element in order to reduce the length of the beam, and to be moved further out of the first element in order to increase the length of the beam.

5 17. An extensible beam as claimed in claim 16, wherein in the extended configuration less than half of the second element, or between the first and second elements, can extend out of the first element.

10 18. An extensible beam as claimed in any preceding claim, wherein the second element further comprises a web portion extending between the first and second strut members, the web portion being adapted to prevent parts of a user from being caught within the beam during use.

15 19. An extensible beam as claimed in claim 18, wherein the web portion extends axially less than approximately half of the length of the second element.

20 20. An extensible beam as claimed in either of claims 18 or 19, wherein the web portion has a thickness substantially less than the thickness of the strut members.

 21. An extensible beam as claimed in claim 20, wherein the web portion comprises a sheet of material.

25 22. An extensible beam as claimed in any preceding claim, wherein the first and second support portions are coupled to, and supported by, the respective first and second lateral portions.

30 23. An extensible beam as claimed in any preceding claim, wherein the first and second support portions each have a length, in the axial direction of the beam, which is substantially less than the axial length of the first element.

35 24. An extensible beam as claimed in any preceding claim, wherein in use, the relative positions of the first and second elements are constrained so that substantially the entire length of each support portion is in contact with, or closely adjacent to, a part of the

corresponding strut member, irrespective of whether the second element is retracted or extended relative to the first element.

25. An extensible beam as claimed in any
5 preceding claim, wherein a first abutment portion of the second element is adapted to engage part of the first element to restrict axial movement of the second element away from the first element.

26. An extensible beam as claimed in claim 25,
10 when including the feature of either of claims 12 or 13, wherein the first abutment portion of the second element is provided by a part of a cross member.

27. An extensible beam as claimed in either of
15 claims 25 or 26, wherein the first abutment portion of the second element is adapted to engage part of a support portion.

28. An extensible beam as claimed in any
preceding claim, wherein there is provided on the first element a first engaging portion for engaging a structure
20 and providing support for the beam relative to the structure.

29. An extensible beam as claimed in any
preceding claim, wherein there is provided on the second element a second engaging portion for engaging a structure
25 and providing support for the beam relative to the structure.

30. An extensible beam as claimed in claim 29,
wherein the second engaging portion comprises a
horizontally orientated substantially axially projecting
30 portion.

31. An extensible beam as claimed in claim 30,
wherein the second element comprises a substantially
vertically orientated portion adjacent the second
engagement portion and there is provided a spacing portion
35 for spacing the substantially vertically orientated portion from the structure defining the opening when the engaging portion engages the structure.

32. An extensible beam as claimed in claim 16 or any subsequent claim when dependent thereon, wherein in a contracted configuration of the beam the second element is adapted to fit within the first element so that none of the second element protrudes from the first element.

33. An extensible beam as claimed in any preceding claim, wherein in use, the strut members are substantially parallel to the lateral portions.

34. An extensible beam as claimed in any preceding claim, wherein in use, the strut members are spaced apart from the lateral portions.

35. An extensible beam as claimed in claim 34, wherein, members which form the support portions include one or more parts which space apart the strut members from the lateral portions.

36. An extensible beam as claimed in claim 16 or any subsequent claim when dependent thereon, wherein the second element is dimensioned so that a degree of lateral movement within the first element is possible.

37. An extensible beam as claimed in claim 36, wherein approximately 2mm of lateral movement is possible.

38. An extensible beam as claimed in any preceding claim, wherein at least one element is made substantially from steel.

39. An extensible beam as claimed in any of claims 1 to 37, wherein one, or both, of the first and second elements is made substantially from aluminium.

40. An extensible beam comprising:

(a) a first elongate element comprising:
a top panel, for supporting building materials thereon; opposing side panels which in use project generally perpendicular from opposing sides of the top panel so that the top panel and side panels form three sides of the first element which is generally rectangular in radial cross section; and first and second support portions projecting inwardly from respective inner surfaces of the respective first and second side panels;

and

(b) a second element adapted to move relative to the first elongate element in order to vary the amount of overlap between the first and second elements and
5 thereby vary the length of the beam, the second element comprising first and second generally parallel spaced apart strut members connected by at least one cross member;

whereby the first and second strut members are supported
10 by the respective first and second support portions and able to slide relative thereto in order to provide relative axial movement of the second element relative to the first element.

41. An extensible beam as claimed in any
15 preceding claim wherein the extensible beam is a reusable extensible lintel.